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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,579

11/21/2003

Kenneth Edward Anthony Omersa

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EXAMINER

HODGE, ROBERT W

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,579	<b>Applicant(s)</b> OMERSA, KENNETH EDWARD ANTHONY	
	<b>Examiner</b> ROBERT HODGE	<b>Art Unit</b> 1795	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,6-28,30-34,36-59 and 61-73 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,8-10,13,14,21,23,25,30,65-68,71 and 73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 6,7,11,12,15-20,22,24,26-28,31-34,36-59,61-64,69,70 and 72.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/31/07 has been entered.

### ***Response to Arguments***

Applicant's arguments, see Remarks, filed 12/31/07, with respect to the rejection(s) of claim(s) 1-3, 8, 9, 13, 14, 21, 23, 25, 30, 33, 65-67, 71 and 73 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Pre-Grant Publication No. 2002/0048699.

Applicants have preemptively argued that the combination of Steele with Shibata regarding the independent claims will not obviate the claims since Steele teaches a titanium alloy. However Steele is the secondary reference and is only used to conceptually teach a porous region bounded by a non-porous region, not to include the alloy of Steele in Shibata (it is noted the combination in the office action never stated that the alloy of Steele is being provided in Shibata) Shibata already teaches a non-alloyed titanium having porous and non-porous regions.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3, 8-10, 13, 14, 21, 23, 25, 30, 65-68, 71 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1225648 hereinafter Shibata in view of U.S. Pre-Grant Publication No. 2002/0048699 hereinafter Steele.

Shibata teaches a solid oxide ceramic fuel cell comprising a non-polymeric electrolyte, a plurality of thin film adhering cathode layers (i.e. foil and is a structural member) made of titanium (non-alloyed) which are non uniformly dense (i.e. having porous and non-porous regions), wherein a porous and electrically collecting cathode layer is formed on the cathode layer which can comprise titanium or ceramic material and said cathode layer indirectly supports the electrolyte (figure 2 and paragraphs, [0032], [0038], [0039], [0047], [0048] and [0063]). The Examiner notes that no patentable weight has been given to the product-by-process limitations in claims 21 and 23 as to how the porous region is formed as well as the product-by-process limitation found in claim 25 as to how the member is formed, see MPEP 2113 and because the final product has been found in the prior art it reads on the claims as so recited. Shibata further teaches that the solid electrolyte layer is not limited to the materials listed in the disclosure (paragraph [0039]).

Shibata does not teach that the porous region is bounded by the non-porous region or that the electrolyte is cerium gadolinium oxide.

Steele teaches a solid oxide fuel cell comprising a substrate having a porous region bounded by a non-porous region, with an electrolyte coating of cerium gadolinium oxide located thereon (paragraphs [0012], [0014], [0065] and [0066]).

At the time of the invention it would have been obvious to one having ordinary skill in the art to include cerium gadolinium oxide as the electrolyte and for the porous region to be bound by the non-porous region in Shibata as taught by Steele in order to match the thermal expansion of the different layers with one another so that they don't separate from each other and to effectively seal the fuel cells so that the reactants don't leak from the fuel cells thus preventing an explosion hazard.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HODGE whose telephone number is (571)272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1795

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. H./  
Examiner, Art Unit 1795

/Jonathan Crepeau/  
Primary Examiner, Art Unit 1795